results, suggesting that discussions around teaching evaluations are not widely understood or discussed across the institution. Similarly, since most standardized student evaluations of teaching are summative (Participant 7) students do not get to see whether their instructors actually implement their

feedback, suggesting the need for more formative feedback opportunities. These teaching evaluations are particularly important for graduate students who often have little to no training in effective teaching practices (Participant 9).

Table 4. Sample Quotes for Lever 2

Barrier: Lack of Comprehensive Teaching	Facilitator: Usability and Accessibility of Student	
Evaluations	Evaluations of Teaching	
"I don't know [in my department] nobody sits in	"At my institution, the results of teaching evaluations are	
your classroom to give you feedback on your	accessible to students. I have no idea. I've been in the	
communication style in the classroomthe	same classroom for 15 years, but I'm a frontline	
questions on the [student evaluations of teaching] are	worker. How do I know if they get to see them?	
so vague. They don't really provide a lot of direction	Nobody tells me."- Participant 8, Focus Group	
in terms of improving that."- Participant 5, Focus		
Group		
"The feedback mechanisms need to be more	"I know for graduate students they don't get that end	
comprehensive because professors and instructors	of term evaluation. How do the graduate students get	
are not going to go out on limbs unless they are	evaluated so that they can put their dossiers together	
supported and protected."- Participant 6, Focus	when they're applying for positions?"- Participant 9,	
Group	Focus Group	
"More invitations to give feedback outside of end of	"Anything [instructors] may have updated or	
course evaluations." Participant 7, Survey	changed because it didn't work so well in the current	
	class. I would like to see whether or not the feedback	
	given was taken into consideration."- Participant 10,	
	Survey	

#### Lever 3: Effective Teaching is Implemented

Discussions around effective teaching often point to an instructor's individual commitment to the students and their learning experience. Participants 11, 12 and 13 all present examples of ineffective teaching practices that demonstrate a lack of accountability, effort and encouragement (See Table 4). In these examples and those from other participants, commitment to effective teaching is impacted by several barriers that align closely to the levers: having limited support from departmental chairs or administrators and pressures to focus on research (Lever 1), larger enrollment numbers (Lever 4), limited time to develop best practices (Lever 5) and little recognition (Lever 6).

Having diversified learning experiences that are collaborative and innovative is highlighted as a facilitator for effective teaching. Participants point to examples of experiential learning opportunities, lab demonstrations and pedagogical techniques that differ from the traditional lecture format. Furthermore, they identify the need for more informal opportunities for students to get to know their instructors in order to build rapport and encourage engagement with course material outside

of class. These strengthened student-teacher relationships encourage students to be more active learners by diminishing power differentials and making students more comfortable to participate in

the learning process. These recommendations are all consistent with principles long associated with effective undergraduate teaching (Chickering & Gamson, 1987).

Table 5. Sample Quotes from Lever 3

Barrier: Instructional Commitment	Facilitator: Diversified Learning Experiences
"In another department, I have heard a professor say they try and teach as poorly as possible so that the enrollment will be lower next year and there will be less to grade. That is reprehensible and yet allowed to exist. How do you make that kind of professor teach and more importantly teach wellThey are so poisonous to the system."- Participant 11, Survey	"You have a very different culture. The students that I have encountered who are from the [science department] speak to the real push towards peer interaction, peer supports, and the willingness to go for help and to receive help."- Participant 14, Focus Group
"We claim that we do all the right things, but who is monitoring? I do not see Chairs or Deans monitoring teachingI hear that some instructors do maybe 1 to 1.5 hours in a 3-hour slot and even that with pictures and photos! That is not teaching. Teaching takes effort and organization and needs clear targets per course."- Participant 12, Survey	"I think that interacting with students in less formal settings (e.g., going to a drop-in tutoring session in residence, having dinner with students, helping design activities such as campus days) gives instructors a better understanding of their students and helps students see instructors from a different perspective. This knowledge can help the teaching relationship. Instructors will know how to support and challenge their students and students feel more comfortable asking questions and being active learners."- Participant 15, Survey
"I would say encouraging students to participate in the class. I was at [name of institution] years and years ago and I remember that there was a professor who said on the very first day of class, many of you are going to fail. So, if you don't want to do the work, get out. That's not very encouraging Sure enough, half of the class left." – Participant 13, Focus Group	"Departments should be actively marketing courses as learning opportunities rather than focusing on the ability of students to achieve high marks in the course. Greater attention to alternative teaching methods, especially when it comes to evaluations. While teachers must focus on developing skills essential to the discipline, they must also allow for students to express their learning in various and diverse ways."- Participant 16, Survey

# Lever 4: Infrastructure Exists to Support Teaching

Given the various implications of space on active learning and student-faculty collaborations (Jamieson, 2003; Finkelstein, Ferris, Weston & Winer, 2016), an important facilitator of teaching culture is having spaces that inspire learning, with pedagogically-sound timetables, appropriately sized classes and functional designs that are co-developed by instructors, students and staff.

A major barrier is the disproportionate distribution of these spaces that inspire learning. Participants

Table 6. Sample Quotes from Lever 4

identify that their institutions do not have enough supply to fulfill all of the student demand (See Table 5). In fact, Participant 17 expands on this issue even further, implying that some groups are given priority or access to teaching space over others. Having access to appropriate classrooms or having class sizes that are too big not only limits the active learning opportunities an instructor can have, but it also becomes nearly impossible for faculty to get to know their students and provide constructive feedback (Participant 22), greatly impacting the amount of effective teaching that can be implemented (Lever 3).

Barrier: Disproportionate Distribution of Resources	
and Support	

Facilitator: Spaces that Inspire Learning

In response to prompt 24: at my institution learning space such as classrooms, labs and studios are designed to support learning, [equipped with] moveable chairs, sufficient space, and appropriate tools.

"That's my big bee in my bonnet. I know that those classrooms exist....and I'm never allowed to have them."- Participant 17, Focus Group

"Teaching spaces need to be flexible, alive with colour and clean. Seating needs to be comfortable and functional technology needs to be current with internet connectivity throughout." Participation 20, Survey

"The class sizes are growing, the expectation is really reflecting back now on the instructors and the professors and the entire teaching team and that includes TAs. I think that's why some of them now are in a space where they need to reach out to get some kind of help because they need more resources to be able to do their job."- Participant 18, Focus Group

"Appropriate selection of classrooms to match class size, style and type. Often the rooms are not appropriately matched (due to limited availability) and this sometimes impedes the types of activities and discussions that can take place." Participant 19, Survey

"There needs to be more/better space for teaching: stuffy, small, windowless classrooms are soul-sucking to teach in, and while classroom updates/renovations are welcome, undertaking them without bothering to consult with instructors has resulted in rooms that look shiny, but are not functional for teaching." Participant 21, Survey

"My teaching is compromised by the fact that my classes are just too big. I cannot offer enough feedback on written assignments or even get to know my students."- Participant 22, Survey

# Lever 5: Broad Engagement Occurs Around Teaching

Many participants discuss the presence of institutional decentralization, describing the barrier of departmental silos that result in limited collaborative networks and strained communication. Some microcultures within departments that do not value teaching can impede the amount of teaching engagement that occurs not only within a department, but also more broadly throughout the institution. Participant 23 describes the difficulty in finding the right people to advocate for teaching

engagement and challenge the negative perceptions of their peers.

Participants also identify the importance of having both formal and informal opportunities for breadth of engagement around teaching. Professional development opportunities are often highlighted as mechanisms to achieve this breadth, including workshops, guest speakers, consultations with their teaching and learning centres, orientation events, mentorship opportunities and hallway discussions with colleagues and students (See Table 6).

Table 7. Sample Quotes from Lever 5

Barrier: Departmental Silos	Facilitator: Opportunities for Breadth of Engagement
"I find that the silo-ing of effective teachers is also present. There's a few people out there who are really trying and are really thinking about focusing on teaching and helping to build a positive teaching culture, but you have to go find those individuals and make them your best friends. Then you have to bring in funding so that they can then do something with that because if they have success then some of those other negative peers around them realize 'Maybe I can do that next time'."- Participant 23, Focus Group	"In my experience as a graduate instructor, there does seem to be quite a bit of instruction and opportunity for professional development as teachers early in the program. We are also encouraged to seek out these opportunities through the [teaching centre]. However, it would be nice to see more recognition of teaching as important and more opportunities for teaching to be discussed more widely across the faculty."- Participant 26, Survey
"I think there should be places that [graduate] students can get [professional development] independent of their department, but I think in some cases departments do a really good job in providing that support and I know in other departments, there's no support at all."- Participant 24, Focus Group	"Our institution does a very good job of allowing teaching assistants to teach tutorials/guest lectures to gain the teaching experience and I think this is very important for student learning and graduate student skill development."- Participant 27, Survey
"More collaboration between all levels of employees to support a successful and transparent learning environment."- Participant 25, Survey	"Seminars in which faculty/instructors (not teaching specialists) share their own experience with new teaching methods to their colleagues in a peer-to-peer training fashion."- Participant 28, Survey

## Lever 6: Effective Teaching is Recognized and Rewarded

Publicly celebrating successful teachers is identified as the final facilitator with participants noting examples of financial rewards and grants, celebration ceremonies, and spotlight stories on institutional news outlets. The public recognition that teaching matters encourages the implementation of effective teaching (Lever 3) and incentivizes instructors to develop their teaching practices (Participants 32 and 34) by utilizing feedback (Lever 2) and engaging in teaching initiatives (Lever 5).

overshadowed by the prioritization of research. According to participants, teaching-focused faculty are treated as "second class citizens" and "little coloured blocks on a spreadsheet" since research is the main metric for career advancement (Participant 29) and hiring and tenure decisions (Participant 31). Similarly, strong researchers are offered the ability to buy-out their teaching responsibilities (Participant 30), which not only sends a message that teaching does not matter as much as research, but it also disadvantages the students from learning about new and upcoming research in their field of study.

However, the notion that teaching matters is often

Table 8. Sample Quotes from Lever 6

Barrier: Prioritization of Research	Facilitator: Public Celebrations of Teaching Success
"Faculty and staff are much more likely to advance their careers through research than through their teaching. We should recognize and reward great teachers beyond one-time awards." – Participant 29, Survey	"I think there's little reward. So, if you want the people to be here, if you want them to learn about improved teaching and improved methods, it needs to be valued here. If there's nothing in it for them, why are they going to do it? There's no carrot. There's no incentive. There's not recognition. That's one of the problems that I think that I've seen recently."- Participant 32, Focus Group
"In my department we're constantly discussing teaching loads and it seems that sometimes our best researchers get to not teach and they get to buy out their teaching. That would be an example of a failure because we should always have the smartest, best researchers being the ones teaching our students. I think once you can break down that barrier then it becomes a lot easier." – Participant 30, Survey	"I have a different take on this. I've worked closely with faculty compensation. I feel that financially we reward teaching much more than we reward research. At the [professional school] we kind of have the opposite problem. Everybody wants to teach and we're not giving out strong research that's unique to the [professional] school."-Participant 33, Focus Group
"If tenure committees turned down strong researchers with dismal teaching, I would start to believe. If the administration started to actually demand tenure committees demonstrate teaching excellence/ aptitude/ interest in incoming faculty rather than value innovation/research over reasonable teaching metrics."- Participant 31, Survey	"Better financial rewards for excellent teaching at [university name] would greatly motivate efforts to improve teaching practices."- Participant 34, Survey

#### Limitations

The findings described in this research demonstrate the many barriers and facilitators that coexist to create an institution's culture around teaching. Although the findings align closely with past research and the predetermined levers, there are notable limitations. Only two institutions were involved in the data analysis, representing one region in Canada. Additionally, only one research assistant, who has been involved in the project for several years, was responsible for the analysis. The research team that bias and a predetermined understanding of teaching culture literature may have impacted the interpretations. In future research, the team plans on doing a more thorough analysis of the open-ended comments, with several coders and data from more institutions.

### Conclusion

Overall, staff, students and faculty identify both barriers to and facilitators of a strong institutional teaching culture. These barriers and facilitators align closely with the six levers framing the ITCP surveys which helps to provide support for the utility of the surveys within Canadian universities. In addition, the analysis provided in this paper suggest that the six levers, accompanied by their barriers and facilitators, are not mutually exclusive, emphasizing the complex and multifaceted nature of higher education institutions and the cultures embedded within them.

Participants highlight that institutional culture ultimately begins at the top. Institutions may need to overcome a misalignment of their institutional identity (Barrier 1) by having senior administrative support (Facilitator 1) that prioritize effective teaching in institutional strategic initiatives and practices (Lever1). In doing so, senior administrators may need to overcome the prioritization of research (Barrier 6) by recognizing and rewarding effective teaching practices (Lever 6) through public

celebrations of teaching success (Facilitator 6). The measurement of effective teaching practices needs to be both constructive and flexible (Lever 2), forcing institutions to reconceptualise more comprehensive evaluations of teaching (Barrier 2), and create processes around the implementation of evaluation feedback by instructors and the accessibility of that feedback for staff and students (Facilitator 2). Additionally, institutions need to hold their instructors accountable to the implementation of effective teaching (Lever 3) by ensuring that they are committed to pedagogy (Barrier 3) and are providing diversified learning experiences for their students (Facilitator 3). Yet, infrastructure needs to exist to support teaching demands (Lever 4), encouraging institutions to overcome unbalanced or insufficient distribution of resources and supports (Barrier 4) and create more spaces that inspire learning (Facilitator 4). Finally, it is essential that institutions challenge the silos as the sole way of operating (Barrier 5) by providing a breadth of opportunities (Facilitator 5) for broad engagement to occur around teaching (Lever 5).

## Moving Forward

The ITCP surveys provide tools for assessing an institution's teaching culture from the perspectives of staff, students and faculty. Although the surveys are not yet fully validated, they have launched a conversation around the many facilitators that coexist together within an institution and the many barriers that halt these facilitators from making substantial cultural change. Results from the openended survey question, and the inclusion of focus groups following the survey, provide opportunities for rich discussion and examination of trends emerging from the quantitative survey results. The research team wants to continue these conversations as they develop an online repository of identified practices of effective teaching. The ITCP surveys do not just gather perceptions; they can also encourage the exchange and implementation of practices to

help improve institutional teaching culture in order to enhance both student learning and the teaching experience.

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## Acknowledgment

We would like to thank Dr. Jill Grose, Dr. Ken Meadows, Dr. Lynn Taylor, Dr. Paola Borin and Dr. Joseph Beer for their essential contributions to the Institutional Teaching Culture Project. We would also like to thank the Social Sciences and Humanities Research Council of Canada for their funding of this project. To learn more, please visit our website: https://qualityteachingculture.wordpress.com/